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Alberto Bento
University of Baltimore

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Installation and use of Linux as a client and server operating system: a tutorial

Al Bento, University of Baltimore, abento@ubmail.ubalt.edu

Abstract

This tutorial covers the installation of Linux as a client and server operating system, examples of client applications, and how to set up servers in Linux (see <http://home.ubalt.edu/abento/ais/tutorial>).

Objective and audience

The main objective of the tutorial is to introduce in a systematic way the Linux operating system to MIS faculty. The Linux installed base is almost of the same size of the Macintosh, has grown eighty percent in the last year alone, and it continues to grow at the same pace. Main information technology companies like IBM, Intel, HP, Oracle, Dell, Compaq, Novell, and Netscape are now supporting and investing in Linux. Even CNN Financial News dedicated a half an hour program to discuss Red Hat Software (the main Linux distributor) with its CEO.

It is time the MIS faculty takes a closer look at this new technology -- which this tutorial will provide. The audience, therefore, is all MIS faculty that would like to see a PC working both as a client and server machine using Linux; that would like to know how to install and use a PC both as a client and server using Linux.

Outline

1. Introduction: What is Linux and a visual tour of Linux using the KDE Desktop Environment (KDE). Freeware client applications in Linux such as WordPerfect, Star Office, Netscape, Wxftp, File Manager, Xv, asWedit, games, etc.

2. Hardware requirements: Typical PC configurations for client and server machines. The dos and don'ts of hardware selection. On-line resources for hardware compatibility and installation under Linux.

3. Software (Linux) installation: The various distributions, particularly RedHat, Caldera and Suse. Client installation using the RedHat distribution. Server installation using both the RedHat server class and building upon the client class.

4. Desktop (window managers) software installation: The various options, particularly AfterStep, CDE and KDE. Obtaining and installing KDE. Written and on-line documentation for KDE. An easy to read book on KDE

(Ricart, 1998) will be circulated in the audience as evidence of the popularization of Linux and KDE.

5. Client (application) software installation: How to obtain and install the free software shown in the tutorial introduction.

6. Server software installation: Most distributions already include Telnet, Mail, FTP and Web server software. Obtaining and installing free data base and audio and video streaming servers. Other commercial servers available in Linux. The Apache Web Server will be used as an illustration of the setup of servers in Linux.

7. Windows and Linux interoperability: An introduction to the SAMBA protocol and use. SAMBA allows a machine running UNIX or Linux to provide services using Microsoft networking protocols. The Linux machine is shown as a member (or server) in a Windows network, including in the Network Neighborhood tool. This allows seamless integration between Windows and Linux. Files and printers can be shared among both types of machines.

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